

## ARCHITECTURE ANALYSIS: Cella-150

The architectural pattern used for this project was a Model-View-Controller. The **model** is the **40 x 40 array** that held the states of the automaton. The **view** is the HTML file **js-1.html**. The **controller** is the **draw-stuff.js**, which is triggered in the view file, modifies the state array, and draws the results onto the view.

This type of implementation makes the controller very coupled to both the model and the view. A better implementation would be to have the controller just modify the model and have the view observe changes to the model and draw itself accordingly. This way all logic of “drawing” is removed from the controller. The project would become more maintainable and understandable.

The below sequence diagram shows the two objects - **ViewBoundary** and **CellaEntity**. The trigger comes when the user opens the HTML file in their browser. The view begins to trigger the entity object and initializes the automaton. Once initialized, **nextGeneration()** is called and **CellaEntity** begins to draw onto the view using the Wolfram-150 Automaton rules.

